

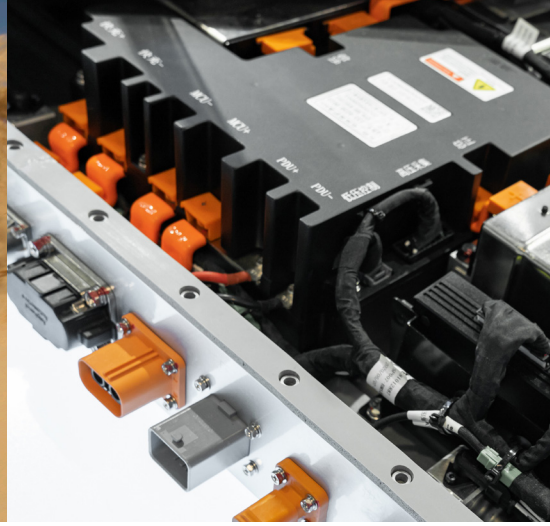

TECHNICAL BULLETIN

Edgetek™ High Impact PKE Formulations

The Edgetek™ High Impact (HI) PKE series consists of specialty engineered, impact modified polyketone (PK) thermoplastics. These formulations provide superior chemical resistance, low moisture uptake, and outstanding high impact and wear resistance. These properties offer manufacturers a high-performing, cost-competitive, and more eco-conscious alternative to nylons.

Formulated to deliver high performance in chemical, fuel contact, and high moisture environments, these thermoplastics are useful in applications found in the industrial, electrical/electronics, transportation and powersports industries.

These materials also offer a sustainability benefit through a reduced carbon footprint because PK base resin production emits up to 61 percent less carbon dioxide (CO_2) than nylon, helping to improve sustainability over the end-product lifecycle.

Available in natural, white and black grades, the Edgetek HI PKE series is also colorable with support from Avient. These formulations are also available with or without UV performance. When processing, these have similar shrink to nylons, set up quickly, and have short cycle times.

AVIENT™

NORTH AMERICA GRADES

TECHNICAL PROPERTIES[1]	TEST METHOD	Edgetek™ ET8900-0011 HI UV NAT	Edgetek™ ET8900-0012 HI UV White	Edgetek™ ET8900-0013 HI UV Black
Physical				
Density/Specific Gravity	ASTM D792	1.13 g/cm^3	1.15 g/cm^3	1.13 g/cm^3
Molding Shrinkage - Flow	ASTM D955	1.69%	1.76%	1.74%
Mechanical				
Tensile Strength (Yield)	ASTM D638	6,495 psi	6,596 psi	6,835 psi
Tensile Modulus[2]	ASTM D638	158,344 psi	161,087 psi	155,710 psi
Flexural Modulus[3]	ASTM D790	170,444 psi	190,985 psi	186,426 psi
Impact				
Notched Izod Impact 73°F (23°C), 0.125 in	ASTM D256A	18.1 ft-lb/in	16.5 ft-lb/in	18.4 ft-lb/in
Notched Izod Impact -22°F (-30°C), 0.125 in	ASTM D256A	3.2 ft-lb/in	3.0 ft-lb/in	3.3 ft-lb/in
Thermal (HDT)				
66 psi (0.45 MPa), 0.125 in	ASTM D648	121°C	135°C	129°C

(1) Data based on single lot of lab generated samples. Values are not to be construed as specifications.
(2) 0.20 in/min
(3) 0.05 in/min

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